

Date Signed: August 21, 1991

MEMORANDUM

SUBJECT: Definitions of Types of Public Water Systems and
Populations Served by Those Systems

FROM: Connie Bosma, Chief (Signed by Ray Enyeart)
Drinking Water Branch

TO: Drinking Water/Groundwater Protection Branch Chiefs
Regions I-X

We have been asked several times recently to define what constitutes the "population served" of transient and nontransient noncommunity water systems (TNCWS & NTNCWS). In the process of drafting guidance on populations we realized that we needed to refer to other terms which also beg for clarification. We, therefore, believe this is a good opportunity to reiterate definitions related to the types of water systems, and in some cases, to define terms for the first time. We have also included a flow chart that may be helpful in deciding what type of system a water supply is. While we have attempted, through these definitions and flowchart, to be as specific as possible, we realize that this guidance is not, and probably could not be, a cookbook. We do believe, however, that the document offers sufficient definitions and explanations to allow for reasonable and consistent decisions on system categorization and population identification.

SYSTEM TYPE:

Probably the best place to begin is with the National Primary Drinking Water Regulation (NPDWR) definitions of the various types of water systems. Excerpts of those definitions follow. Emphasis has been added to highlight the pivotal criteria.

PWS *"has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily. at least 60 days out of the year."*

CWS *"a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents."*

NCWS *"a public water system that is not a community water system."*

NTNCWS *"a public water system that is not a community water system and regularly serves at least 25 of the same persons over 6 months per year."*

TNCWS *Not defined in regulation. Implied to be any NCWS which is not a NTNCWS.*

The above definitions contain two terms which in turn require some explanation - "year-round residents" and "same persons." We would define these terms as follows:

Year-Round Resident (or Residential Consumer)

an individual whose primary residence is served by the water system. [The individual need not live at the residence for 365 days a year for it to be considered his/her year-round residence.]

Same Persons (i.e., Non-Residential but a Regular Consumer)

an individual who does not reside at a place served by the water system, but has a regular opportunity to consume water produced by the system. [Obvious examples are children at school and employees at their workplace.]

We provided guidance earlier (September 16, 1987) on how much time a person had to have access to a water system to be considered a regular consumer. In summary, that guidance said:

Regular opportunity (or regular access)

four or more hours per day, for four or more days per week, for 26 or more weeks per year.

There is another term which should be defined because it is used frequently, even though it does not appear in the NPDWRs - "transient or transient consumer." We offer the following definition:

Transient Consumer

an individual who has the opportunity, to consume water from a water system, but who does not fit the definition of a residential or regular consumer. [Obvious examples are people stopping by at a highway rest stop, people vacationing for a few days or weeks at a hotel or resort, people having lunch or dinner at a restaurant, etc.]

SYSTEM POPULATION:

With the types of systems defined, we can define the populations served by each.

Population Served (for any type of system)

The number of residential consumers plus the average of the number of regular consumers served, per day, during a month plus the average of the number of transient consumers served, per day, during a month.

The averages of the regular and transient consumers may (and most likely will) change from month to month, and season to season. For the purposes of determining compliance with the State (or Federal) regulations, we propose that the State have the option to decide whether to keep the population served as a fixed number throughout the entire year, or to change it from season to season. If, however, the choice is to keep a fixed number (which is what we recommend), it should be the highest average daily population that would occur during the year. For purposes of reporting to the Federal Reporting Data System (FRDS), the population served [data element C117] could also change each quarter since States have the ability to change inventory information in FRDS on a quarterly basis. Again, we would prefer that the reported populations remain as stable as possible, and therefore suggest that the population reported to FRDS be the highest average daily population that would occur during the year.

Following are a few examples of determining the type of water system and its population:

- Example 1: A system, solely serving a small restaurant, has no residential consumers, 10 employees (regular consumers), and serves an average of 300 customers (transient consumers) per day, year round. The system is a transient noncommunity water system, serving a population of 310 (0 residents + 10 regular consumers + an average of 300 transients / day) .
- Example 2: A system, solely serving a campground/lake/swimming beach of a State park, serves 4 people in the park ranger's residence (residential consumers), 20 cabins (estimated by the State - 300 people), and averages another 250 visitors per day that swim at the lake's beach. During the fall and spring the 20 cabins are only partially occupied, and usually just on the weekends, the campground is closed but the lake is still open for boating. During the winter only the park ranger's residence is in operation. The system is a transient noncommunity water system since it does not have 25 or more residential consumers and it does not have 25 or more regular consumers for more than 6 months per year. The system has an average population of 604 (4 residents + 50 regular consumers + 300 transient consumers + 250 transient consumers) during the most populous month.
- Example 3: A system, solely serving a rural elementary school, serves the principal and 6 teachers and 85 students. The school is in operation for 9 months of the year. The system is a nontransient noncommunity water system because it serves 25 or more regular consumers for more than 6 months per year. The system has an average population of 92 (7 regular consumers + 85 regular consumers).
- Example 4: A system, serves a church, the minister's home, and 2 neighboring homes. There are 5 people that reside in the minister's home, and a total of 7 people that reside in the neighboring homes. The church operates a year-round preschool which has 2 teachers and 15 children. The system is a nontransient noncommunity water system because it serves a total of 12

residential consumers and 17 regular consumers, which are served for 6 or more months. An average of 100 parishioners attend church or Sunday school each Sunday. In addition, the church holds other functions such as choir practices, youth group meetings, and dinners. The daily average, over any given month, for the transient population is 25 people. The system has an average population of 54 (12 residents + 17 regular consumers + 25 transient consumers).

We request your review and comment on the above. Unless there are major disagreements with the proposal, we plan to issue the definitions as a Water Supply Guidance. If, however, there appear to be significant or sufficient objections to the proposal, we will re-group and re-propose a definition, or set up some type of forum to resolve the objections. Please call, or send, any comments to Ray Enyeart on 382-5551. I would appreciate your feedback by September 30. Thanks.

Attachment:

Flowchart for Determination of PWS, CWS, NTNCWS and TNCWS